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Guide to Test Interpretation

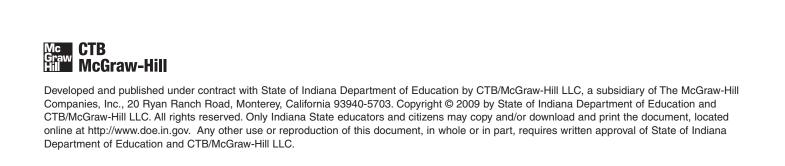


Grades 3–8
Spring 2009

School Year 2008-2009







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A Message from Dr. Tony Bennett

August 2009

Dear Educators:

As you prepare to receive the results of the spring 2009 *ISTEP+* exam, I would like to draw your attention to the *Guide to Test Interpretation* (GTI), an important informational aid in interpreting the results. The GTI should prove helpful in providing a greater understanding of the data as you begin to communicate with teachers, parents, students and your communities.

But more importantly, as we continue to pursue our mission of preparing every child to compete with students from across the country and around the world, we must thoroughly and accurately identify their individual strengths and areas of need. By learning to interpret the assessment data correctly, we can be sure we are delivering their education in a manner that addresses their individual needs.

The release of the assessment data may trigger program evaluations, research-based activities and a strong communications effort within school buildings and in your local communities. I urge you to encourage such activities to facilitate improvement, to engage parents and to open dialogue with community leaders. Emphasizing the importance of accurately interpreted data will not only help us achieve our goal of preparing our children for post-secondary opportunities, but will also help us reach the goal of 100% proficiency in English and Mathematics under No Child Left Behind.

I expect that the GTI will be helpful to you in these endeavors and will strengthen your knowledge of *ISTEP+* and its results. If you have any questions, please don't hesitate to contact my office.

Sincerely,

Dr. Tony Bennett

Superintendent of Public Instruction

What can you learn from *ISTEP+*?

Taxpayers, parents, and educators ask many questions about instructional programs as Indiana strives to build a brighter future by providing the best possible education for its young people. Questions such as the following are commonly asked:

"Are all our students attaining the skills they need to succeed?"

"What kind of individual instruction would help my child?"

ISTEP+ provides information that will help you answer such questions and support the instructional choices you make for your students. *ISTEP+* reports can quickly show you the following:

- to what extent an individual student has mastered the Indiana Academic Standards in the English/Language Arts, Mathematics, Science, and Social Studies content areas.
- to what extent the students as a group, in your classroom, school, and corporation, are attaining mastery of the Academic Standards.
- where the students in your classroom, school, or corporation stand relative to the three performance levels established by the Indiana State Board of Education. (See page 8 for more information about performance levels.)

What is a criterionreferenced score?

ISTEP+ is a criterion-referenced test. It consists of items that assess a student's performance with respect to particular criteria—in this case, to the Indiana Academic Standards established by the Indiana State Board of Education. The test does not provide norm-referenced information; that is, it does not compare the performance of Indiana students with that of students across the nation. Criterion-referenced scores indicate where a student stands in relation to the established Indiana Academic Standards. These scores are developed based on Item Response Theory (see page 6). The most valuable application of criterion-referenced information is to identify a student's strengths and needs in order to plan appropriate instruction.

Criterion-referenced scores are presented by Academic Standards within each content area, as follows:

Content Area English/Language Arts Mathematic	cs
Academic Standards 3.1 Vocabulary 3.1 Number Standards 3.2 Nonfiction/Info Text 3.2 Computation	

Item Response Theory

Item Response Theory (IRT) refers to the theory underlying a family of statistical models. These statistical models analyze the data obtained from test questions, or items. For the *ISTEP+* tests, two models are used. One is used for the multiple-choice items, and another is used for the open-ended items.

The two models are used in combination with test data to characterize items and generate student scale scores. Both models use the data to determine how difficult each item is and how well each item accurately identifies students who do and do not have the skill being tested by the item. The multiple-choice model also describes the degree to which students can guess the correct answer to each item.

Pattern Scoring

The statistical characteristics of the items can affect a student's total test score (scale score). This is particularly true with *ISTEP+* because it is pattern scored. Pattern scoring incorporates information from items using the IRT model. In contrast, raw scoring or number-correct scoring simply notes whether or not the student answered the item correctly. Both pattern scores and raw scores can be considered ability scores used to represent a student's ability level. To illustrate the differences between pattern scoring and raw scoring, consider two students, Student 1 and Student 2, who both correctly answer 20 items. Student 1 answers the 20 most difficult items, while Student 2 answers the 20 easiest. With raw scoring, both students receive the same raw (ability) score, indicating both students have the same "ability," and the highest raw score possible is equal to the total number of items on a test. In contrast, when the pattern of the items answered correctly is taken into account—that is, when the information about the difficulty of the items (among other item characteristics) is considered—Student 1 rightly receives a higher ability score.

Scale Scores

When ability scores are placed on a scale different from the raw score or number-correct scale, they are called "scale scores." The ability scores are transformed and placed onto a scale, much like taking a degree of temperature on the Celsius scale and transforming it onto the Fahrenheit scale. How hot or cold the temperature is does not change. What does change is the scale used to describe the temperature. In the same way, ability scores can be described by different scales and still maintain their meaning as an indication of ability.

Vertical Scale

The *ISTEP+* tests have been placed on yet another scale, a "vertical scale." Instead of having a different scale for each grade, the *ISTEP+* ability scores have been placed on two scales that move vertically from Grade 3 through Grade 8—one for English/Language Arts and one for Mathematics. Without a vertical scale, one would not be able to make a direct comparison of an individual student's performance from grade to grade within a content area. To return to the temperature example, instead of having to report the temperature in North Dakota on the Celsius scale and the temperature in Florida on the Fahrenheit scale, one can report conditions in both areas on the Fahrenheit scale.

Similarly, instead of having a different scale at each grade, there is only one scale for each content area in Grades 3–8. One thing to keep in mind: The temperature range and average (mean) temperature in North Dakota are usually lower than they are in Florida, although the states sometimes have similar temperatures. In the same way, the ranges of and mean scores for Grade 3 are lower than those for Grades 4–8.

The range of scores possible has been defined so that there is a lowest scale score and a highest scale score possible, or "obtainable," for the vertical scale. We call the Lowest Obtainable Scale Score the "LOSS" and the Highest Obtainable Scale Score the "HOSS." For ease of grade distinction, each grade also has a LOSS and HOSS. Again, the scores for a specific content area for Grades 3–8 are on only one vertical scale.

Illustration of LOSS, HOSS, and Score Overlaps:

Grade X	100	200
Grade Y	120	220
Grade Z	130	230

To interpret a student's progress from grade to grade, you can check to see whether the student's scale scores are moving upward along the vertical scale each year. The amount of movement, or the number of scale score points increased or decreased, will likely vary from year to year and grade to grade as the test items change each year. However, generally speaking, you may be able to gauge the student's progress (or lack thereof) as he or she moves up or down the scale from grade to grade.

Direct comparisons of individual student scores should not be made across content areas. For example, a score of 185 in English/Language Arts does not mean the same as a score of 185 in Mathematics. Also, minor fluctuations in a student's score from year to year should not be used as the sole source for making high-stakes decisions about a student's progress. It is very important to take into account, before interpretation of student progress, that the difficulty of the content increases from grade to grade and that there are overlaps in scores, as described. Be sure to note where most students are performing—i.e., the mean. If the student performs below the mean one year and above the mean the next, it is likely the student is making progress, compared to same-grade peers. Because of the variability in scores from year to year, it is also very important to consider the student's overall performance level (Pass+, Pass, or Did Not Pass).

Cut Scores and Performance Levels

The No Child Left Behind Act (NCLB) is federal legislation that requires that student achievement be reported in terms of at least three performance levels. One of these performance levels is designated as the proficient level. Each state must determine the number of performance levels to use, as well as the meaning associated with those levels. For Grades 3–8, the *ISTEP+* test scale is divided into three performance levels using two cut scores. The cut score is the score that separates two performance levels. Based on their *ISTEP+* scale score, students are placed into one of three performance levels: Pass+, Pass, or Did Not Pass. For Indiana students, the performance level labeled "Pass" is the proficient level.

Each performance level has a descriptor: a description of what students can do in terms of the content and skills measured by *ISTEP+*. By examining the descriptor for a level in which a student has been placed, teachers, parents/guardians, and the student can gain an understanding of the student's current knowledge of a particular content area. Performance level information can be used to help plan individual instructional goals for the student.

In addition, an "Undetermined" category is reported for any student whose *ISTEP+* scores for English/Language Arts, Mathematics, Science, and/or Social Studies are incomplete (i.e., all or part of a test was not taken or was considered invalid by the examiner or was not received by the examiner.)

Academic Standards Scores

Indiana's Academic Standards are listed by content area on the Student Report, the Class Academic Standards Report, and the Group Academic Standards Summary.

The Indiana Performance Index (IPI) is used to indicate a student's performance on the Academic Standards. This is a statistical value that reflects the number of items a student would have answered correctly if the student had responded to 100 similar items for the specific Academic Standard on the test. It is a better measure of the student's performance than a simple percentage of correct answers to a small number of questions.

The Student Report shows each Academic Standard as well as the student's score (based on the IPI) and the Target Score (see page 50).

The Class Academic Standards Report indicates whether students have mastered each Academic Standard. Symbols appear on this report indicating 1) mastery, 2) non-mastery, or 3) whether a subtest was invalid or omitted. Mastery of an Academic Standard indicates that the Student Performance is equal to or greater than the passing level for a student at the standard.

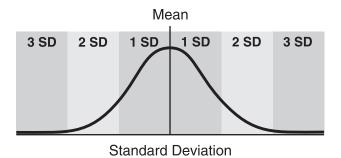
The corporation Group Academic Standards Summary provides a summary of students' performance for all schools in the corporation.

Mean and Median Scores

On *ISTEP+* reports, summary information for a group (such as a class) is often presented using mean or median scores. The mean is the average score obtained by adding together all scores in the group and dividing by the number of students in the group. The median is the middle score. (Fifty percent of the scores fall below it.)

Standard Deviation

The standard deviation (SD) indicates the amount of variability in a group of scores. When scores are normally distributed (i.e., when they are part of a bell-shaped, "normal" curve), about two-thirds of the scores are within one SD above and below the average (mean) score, and about 95% of scores are within two SDs of the mean. In almost any shaped distribution, all scores will be within five SDs of the mean score.



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The *ISTEP+* Testing Program for Grades 3 Through 8

Reports for Grades 3 Through 8

This guide will help you understand *ISTEP+* test results and report forms more clearly and, using those results, provide educational opportunities for students more effectively. This guide will also help you be better prepared to answer questions from parents, students, and other members of the educational community regarding *ISTEP+* results. Toward this end, a Sample Letter to Parents specific to students in Grades 3–8 is included on page 51 for your use.

Each *ISTEP+* report is designed to clearly present the most useful information for you and for your discussions with parents. The audience for each report and the number of copies provided are listed in the table on the following page.

Note: All reports will include the English/Language Arts and Mathematics content areas. In addition, Grades 4 and 6 reports will include Science, and Grades 5 and 7 will include Social Studies.

The ISTEP+ Testing Program for Grades 3 Through 8

ISTEP+ Report Information	ISTEP+	Report	Informa	tion
---------------------------	--------	--------	---------	------

Report	Number of Paper Copies	PDFs via INORS*
For Teachers		
Student Report	1	1
Class Proficiency Grouping Report (Grades 3–6 only)	0	1
Proficiency Roster	0	1
Class Academic Standards Report	0	1
ISTEP+ Label	1	0
For the School Administrator		
Proficiency Roster (school)	0	1
School Proficiency Performance Summary	0	1
Disaggregation Summary Report (school)	0	1
Applied Skills Frequency Distribution (school)	0	1
Undetermined Status Roster	0	1
For the Corporation Administrator		
Proficiency Roster (school)	0	1
School Proficiency Performance Summary	0	1
Corporation Proficiency Performance Summary	0	1
Group Academic Standards Summary (corporation)	0	1
Academic Standards Summary (corporation)	0	1
Disaggregation Summary Report (school)	0	1
Disaggregation Summary Report (corporation)	0	1
Applied Skills Frequency Distribution (school)	0	1
Applied Skills Frequency Distribution (corporation)	0	1
Undetermined Status Roster	0	1
Academic Standards Frequency Distribution (corporation)	n) 0	1

^{*}Indiana Department of Education Online Reporting System

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The ISTEP+ Testing Program for Grades 3 Through 8

Images of student responses to the open-ended items will be available through the Indiana Department of Education Online Reporting System at https://inors.turnleaf.com to assist teachers in reviewing student performance. Teachers may use these images in conjunction with the Student Report and information in the *Teacher's Scoring Guides* to further evaluate each student's strengths and needs.

The purpose of the Student Report is to communicate individual student performance. Only one paper copy of the Student Report will be provided to the corporations. However, a PDF version of the Student Report will be available through the Indiana Department of Education Online Reporting System at https://inors.turnleaf.com>.

In order to interpret and apply the information in all of the reports for Grades 3 through 8, it is necessary to understand the meaning of the scores presented. If you are unfamiliar with *ISTEP+* or testing and scoring terms, please review the previous section in this guide, "Understanding *ISTEP+* Test Results." You will also find a glossary at the end of this guide.

Sample Letter to Parents

To help teachers explain the *ISTEP+* reports to parents, a Sample Letter to Parents specific to students in Grades 3–8 is provided on page 51. You may duplicate or edit the letter to make it appropriate for your use.

Reports for Teachers

Note: All sample reports shown in this guide contain simulated student data only.

Student Report (front)

The Student Report is designed to clearly communicate student performance. The front of the report shows the student's score and whether the student is placed in the Pass+, Pass, or Did Not Pass performance level in each content area. The three performance levels were established by the Indiana State Board of Education. (See page 8 for an explanation of performance levels.) Students whose scores place them in the Pass+ or Pass performance level meet the Indiana Academic Standards. The front of the report also provides guidance to parents who may want to obtain more information or assistance for their child. One paper copy of this report is provided. A PDF version of the Student Report is available online through the Indiana Department of Education Online Reporting System at https://inors.turnleaf.com.

Over →

Reports for Teachers

Sample Student Report

This sample Student Report presents results for Audrey Horn, a student who took the *ISTEP+* test. The middle section of this page describes Audrey's performance as measured against the Indiana Academic Standards, and it shows her achievement for each content area as a three-digit score. The score required to pass the Indiana Academic Standards in English/Language Arts is 445. Audrey's score of 337 means she did not pass the Indiana Academic Standards for that content area. The score required to pass in Mathematics is 423. Audrey's score of 532 means she passed the Indiana Academic Standards for that content area. The Student Report indicates that Audrey did not take the Science test and received Undetermined results.



Using Assessment to Help Students Grow



Dear Parent/Guardian:

This report provides information about your child's achievement on the Indiana Academic Standards. You can see at a glance how well your child is doing. Your child's teacher can also show you classroom work and other test results that provide evidence of your child's progress.

The Indiana Academic Standards describe what students should know and be able to do, and the ISTEP+ test measures how well students have learned the Standards. Student scores on ISTEP+ are reported as three-digit scale scores. These scale scores connect to achievement levels (Pass, Pass+, Did Not Pass), based on the Indiana Academic Standards.

few appropriate Standard English conventions.



Dr. Tony Bennett State Superintendent of Public Instruction Your Child's Spring 20XX ISTEP+ Results For the parent or guardian of:

Audrey Horn

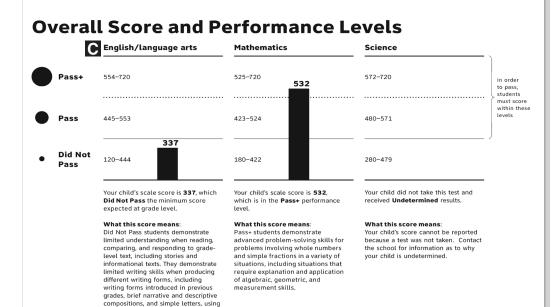
Grade XX
Class D. Cooper
School Due Pix School
Corp/Diocese Dear Meadow District
Birthdate 11-07-XX

B How do I use this report?

After reviewing all of the information contained in this report and talking with your child about it, you may want to meet with your child's teacher to discuss these results. The teacher can talk with you about your child's academic strengths and areas of need. The teacher can also tell you about extra help your child can receive, if necessary.

Indiana schools are required to provide remediation for students who do not pass ISTEP+, and it is your responsibility to make Sure your child participates in these opportunities. If you want to see how your child's scores compare to the average scores of the state and local school corporation, you can find those average scores on our website.

For more information, call our ISTEP+ Hotline at 888-544-7837 (888-54-ISTEP), visit the Indiana Department of Education website at www.doe.in.gov/istep, or send an email to istep@doe.in.gov.



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Reports for Teachers

Highlights of the Student Report (front)

- A Identifies the student's name and grade. Also identifies the class, school, corporation, and student birthdate.
- **B** Provides information for parents.
- **C** Explains the student's performance relative to the cut scores established by the Indiana State Board of Education.

Note: Science data will be included on all of the reports for Grades 4 and 6. Social Studies data will be included on all of the reports for Grades 5 and 7.

Student Report (back)

The back of the Student Report details Performance by Academic Standard and Performance on Open-Ended Items. On the left side of the page, each Academic Standard is listed along with the Target Score, Your Child's Score, the State Average, and Your Child's Comparison to Target Score. Reading to the right of the first Academic Standard, Vocabulary, you will see that Audrey achieved a score of 63, or 19 points lower than the Target Score, which is 82. The State Average score for that Academic Standard is 85.

Audrey Horn

Performance by Academic Standard

Scores on this part of the report indicate a student's performance on each of the Indiana Academic Standards. These scores show the expected number of items the student would have answered correctly if each Academic Standard had 100 items. (Note: These 2-digit scores cannot be added together to equal the 3-digit score found on the front of this report.)

The Target Score (the score typical of students who passed the test) for each Academic Standard is shown, along with your child's score. Comparing the Target Score to your child's score results in a rating of "At or Above Target" or "Below Target".

Performance on Open-Ended Items

This part of the report shows your child's performance on openended (OE) items (an essay and short-answer questions). Each item is listed below, along with the standard, the page number in the test booklet, and the number of points your child earned. This report is most helpful when you use it with a copy of your child's work, which is available on the Indiana Parent Network. More information about the open-ended test items can be found on our website at www.doe.in.gov/istep.

English/language arts



Result by Academic Stan	dard: B	C	D	Your Child's Comparison (✓) to Target Score	
Academic Standard	Target Score	Your Child's Score	State Average	Below Target	At or Above Target
Vocabulary	82	63	85	/	
Nonfiction/Info Text*†	47	50	56		/
Literary Text*†	87	85	84	/	
Writing Process	63	82	78		/
Writing Applications*	50	47	48	/	
Lang Conventions*	85	87	84		/

Result Page ⁸	s on Op	en-Ended Items: Standard	Points Earned
29	1a	Writing Applications	5 of 6
32	1b	Lang. Conventions	2 of 4
41	3	Nonfiction/Info Text	1 of 2
41	4	Nonfiction/Info Text	2 of 2
45	8	Nonfiction/Info Text	0 of 2

Mathematics

Result by Academic Standard:					's Comparison get Score
	Target Score	Your Child's Score	State Average	Below Target	At or Above Target
Number Sense	82	86	85		/
Computation*	47	50	56		/
Algebra & Functions	87	90	84		/
Geometry*	63	82	78		/
Measurement*	50	55	48		/
Data Analysis & Prob	85	87	84		/
Problem Solving*	85	87	84		/

Results on Open-Ended Items:						
Page ⁸	Item	Standard	Points Earned			
84	1	Geometry	1 of 2			
85	2	Problem Solving	2 of 4			
86	3	Computation	1 of 2			
87	4	Problem Solving	2 of 2			
88	5	Measurement	(A) 0 of 2			
90	7	Problem Solving	1 of 2			

Science

Result by Academic Standard:					s Comparison get Score
Academic Standard	Target Score	Your Child's Score	State Average	Below Target	At or Above Target
Nature of Sci. & Tech.*	82	##	85		
Scientific Thinking*	47	##	56		
The Physical Setting*	87	##	84		
The Living Environment*	63	##	78		
The Mathematical World*	50	##	48		
Common Themes*	85	##	84		

Indicates that tested standard contains open-ended items

Reading Comprehension is contained within this standard. ## No score due to invalid/omitted subtest

Condition Codes:

- Condition Codes:

 A = Blank/no response

 B = Illegible/unable to score

 C = Written predominantly in a language other than English/unable to score

 Note: All condition codes convert to 0 points
- D = Insufficient response/unable to score/ copied from text E = Response not related to test question or scoring rule
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Results on Open-Ended Items:

Invalid/omitted session # Page number is approximate

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Scientific Thinking

Common Themes

Scientific Thinking

The Physical Setting

Nature of Sci. & Tech.

The Physical Setting

The Living Environment

The Living Environment

Points

of 6

of 4

of 2 # of 2

of 2

of 2

of 2

of 4

Reports for Teachers

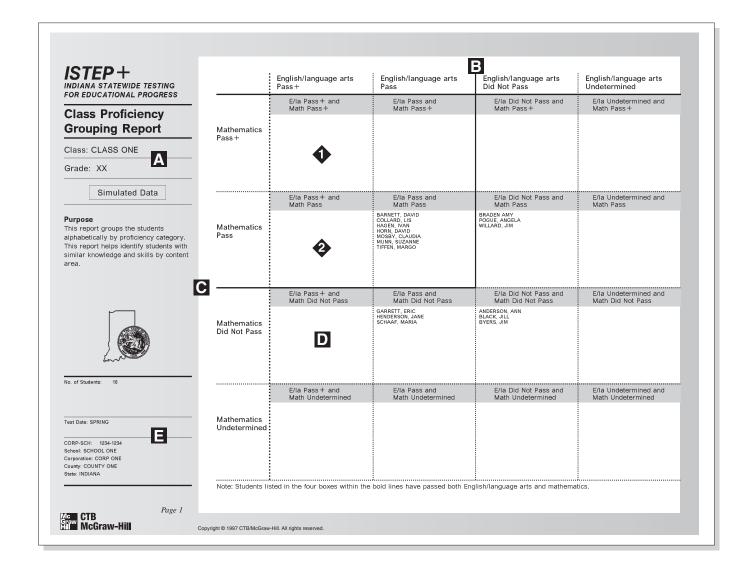
On the right side of the page, the points earned by the student for each openended item are listed, along with the points possible for each item and the standard measured. One can observe on this simulated report, for example, in the English/Language Arts section, that item 1a, Writing Applications, is located on page 29 of the test book and that the student scored five points out of six points possible for this item. This report should be used in conjunction with the *ISTEP+Teacher's Scoring Guides* and the imaged student responses to help the teacher explain the scores and the scoring process. Imaged student responses will be available online through the Indiana Department of Education Online Reporting System at https://inors.turnleaf.com.

Highlights of the Student Report (back)

- A Lists Academic Standards, grouped by content area.
- **B** Indicates the Target Score for each Academic Standard.
- Shows Your Child's Score for each Academic Standard.
- **D** Shows the State Average (mean) score.
- **E** Shows Your Child's Comparison to Target Score.
- Indicates the page on which each open-ended item appears in the test book.
- G Lists each open-ended item and its Academic Standard by content area.
- H Indicates the number of score points the student earned and the number of points possible for each open-ended item.
- **I** Explains the condition codes.

Class Proficiency Grouping Report (Grades 3–6 only)

This report groups students according to their performance relative to the cut scores (see page 48 for a definition of *Cut Scores*) in the content areas assessed by *ISTEP+*. For example, students whose names appear in the rectangle in the upper left-hand corner of the report have obtained scores in the Pass+ performance level in both English/Language Arts and Mathematics. Students reported in the rectangle immediately below the upper left-hand rectangle have scored in the Pass+ performance level in the English/Language Arts standard and in the Pass performance level in Mathematics. Take a moment to familiarize yourself with the layout of this report.



Reports for Teachers

Highlights of the Class Proficiency Grouping Report

- A Identifies the class and grade.
- **B** The **columns** report performance levels for English/Language Arts.
- **C** The **rows** report performance levels for Mathematics.
- Lists students alphabetically within performance levels for both content areas. In this box, the students listed scored in the Pass+ performance level in English/Language Arts and the Did Not Pass performance level in Mathematics.
- Indicates the number of students and test date and identifies the corporationschool number, school, corporation, county, and state.

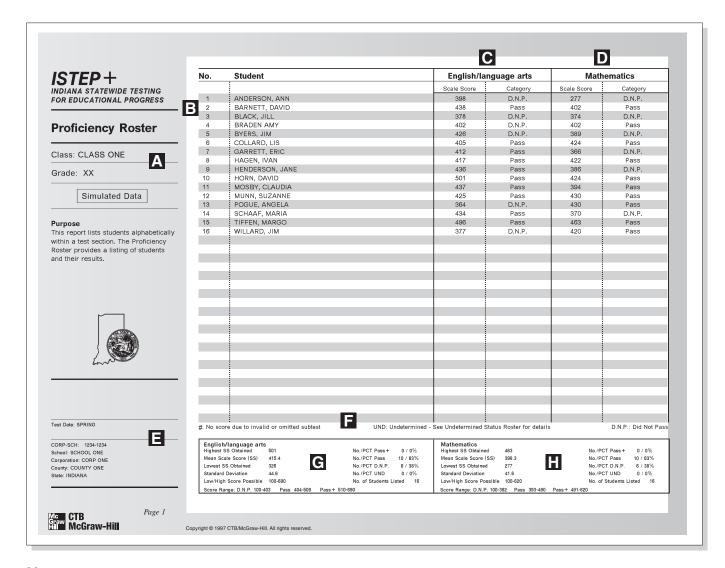
Note: Science data will be included on all of the reports for Grades 4 and 6. Social Studies data will be included on all of the reports for Grades 5 and 7.

Proficiency Roster

This report lists all students in the class alphabetically and tells the teacher how each student performed in the content areas of English/Language Arts, Mathematics, Science, and/or Social Studies. Also shown is the scale score for each student in each of the content areas.

In the lower portion of the report, summary information is given for the class as a whole. Shown for each of the content areas are the lowest and highest scale scores obtained by the students in the group, the group average (mean scale score), the standard deviation, and the lowest and highest possible scores.

The group's performance is also compared to the cut scores to show the number and percentage of students scoring at the Pass+, Pass, and Did Not Pass performance levels.



Reports for Teachers

Highlights of the Proficiency Roster

- A Identifies the class and grade.
- **B** Lists students alphabetically within the class.
- Provides each student's scale score and performance level within the English/Language Arts content area.
- Provides each student's scale score and performance level within the Mathematics content area.
- **E** Indicates the test date and identifies the corporation-school number, school, corporation, county, and state.
- **E** Defines the symbols and abbreviations used in this report.
- **G** Provides English/Language Arts summary information for the class.
- **H** Provides Mathematics summary information for the class.

Note: Science data will be included on all of the reports for Grades 4 and 6. Social Studies data will be included on all of the reports for Grades 5 and 7.

Class Academic Standards Report

The Class Academic Standards Report provides Academic Standards information for all the students in your class on a single report. It presents mastery information for each student and summarizes the performance of the class as a whole.

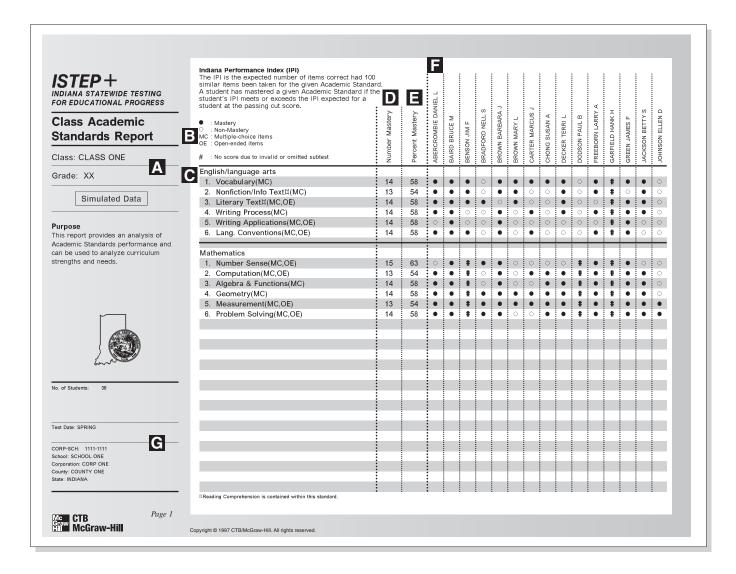
Academic Standards Information

The name of each student in the class appears in alphabetical order across the top of the report. The column below the student's name presents mastery information for that student. The Academic Standards for the grade appear on the left side of the report.

To the right of each Academic Standard the following information appears:

- the number of students who mastered the Academic Standard, and
- the percentage of students who mastered the Academic Standard.

You can use this information to identify areas in which students may need additional instruction.



Reports for Teachers

Highlights of the Class Academic Standards Report

- A Identifies the class and grade.
- **B** Defines the symbols and abbreviations used in this report.
- C Lists Academic Standards for the grade.
- **D** Shows the number of students who mastered each Academic Standard.
- **E** Shows the percentage of students who mastered each Academic Standard.
- **E** Lists students alphabetically by name from left to right.
- G Indicates the number of students and test date and identifies the corporation-school number, school, corporation, county, and state.

Note: Science data will be included on all of the reports for Grades 4 and 6. Social Studies data will be included on all of the reports for Grades 5 and 7.

ISTEP+ Label

The *ISTEP+* Label presents an individual student's criterion-referenced test results in a form that you can easily attach to the student's permanent record.

GOODNIGHT MARTHA S	Simulated Data			
GOODNIGHT MARTHA S DOB: 10/15/XX	ISTEP+	ENGLISH/LANGUAGE ARTS	MATHEMATICS	
STN: 123456789 GRADE XX	PASS CUT SCORE	404	393	
TEST DATE: SPRING	PASS + CUT SCORE	510	491	
SCHOOL: SCHOOL ONE	STUDENT SCORE	520	UND.	
CORP: CORP ONE	PROFICIENCY LEVEL	PASS +	UND.	1

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Reports for the School Administrator

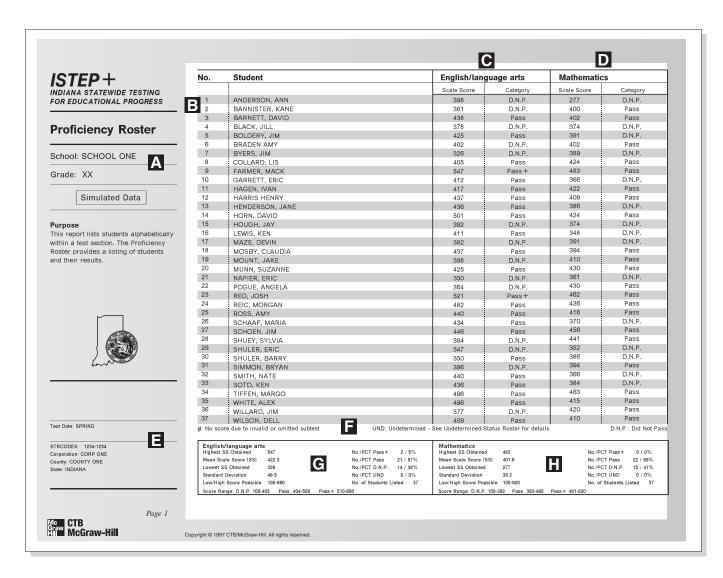
Note: All sample reports shown in this guide contain simulated student data only.

Proficiency Roster

This report lists alphabetically all students in the school by grade and tells the principal how each student performed in the content areas of English/Language Arts, Mathematics, Science, and/or Social Studies. Also shown is the scale score for each student in each of the content areas.

In the lower portion of the report, summary information is given for the school as a whole. Shown for each of the content areas are the lowest and highest scale scores obtained by the students in the group, the group average (mean scale score), the standard deviation, and the lowest and highest possible scores.

The group's performance is also compared to the cut scores to show the number and percentage of students scoring at the Pass+, Pass, and Did Not Pass performance levels.



Highlights of the Proficiency Roster

- A Identifies the school and grade.
- **B** Lists students alphabetically within the school for the grade tested.
- Provides each student's scale score and performance level within the English/Language Arts content area.
- Provides each student's scale score and performance level within the Mathematics content area.
- **E** Indicates the test date and identifies the corporation, county, and state.
- **E** Defines the symbols and abbreviations used in this report.
- **G** Provides English/Language Arts summary information for the school.
- **H** Provides Mathematics summary information for the school.

Note: Science data will be included on all of the reports for Grades 4 and 6. Social Studies data will be included on all of the reports for Grades 5 and 7.

School Proficiency Performance Summary

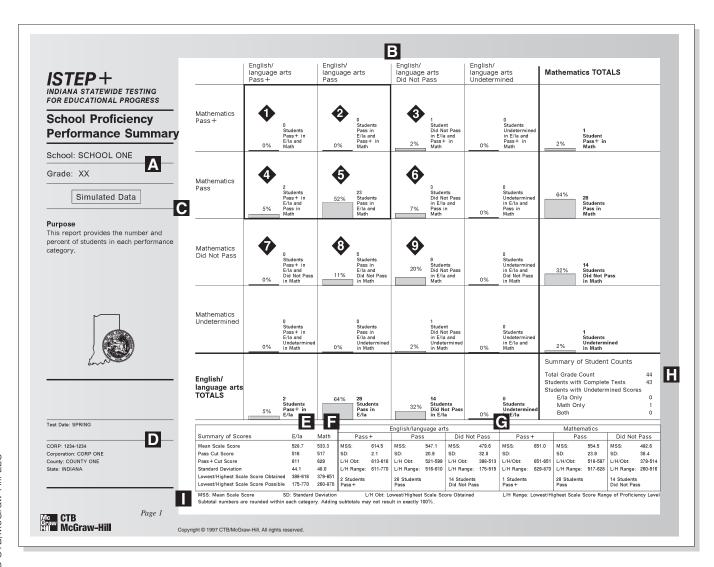
This report summarizes groups of students according to performance levels of two content areas assessed by *ISTEP+*. It also provides summary scores by performance level. Each box provides the number and percentage of students who scored in each combination of performance levels. The rows provide performance-level information for Mathematics, and the columns provide performance-level information for English/Language Arts (see the table below for clarification). Information for Science appears on a separate page for Grades 4 and 6. Information for Social Studies appears on a separate page for Grades 5 and 7. The sum of students listed in blocks 1–9 is the total number of students with complete tests.

	English/Language Arts Pass+	English/Language Arts Pass	English/Language Arts Did Not Pass	
Mathematics Pass+	Students who scored in the Pass+ performance level in both E/LA and Math.	Students who scored in the Pass performance level in E/LA and the Pass+level in Math.	Students who scored in the Did Not Pass performance level in E/LA and the Pass+level in Math.	
Mathematics Pass	Students who scored in the Pass+ performance level in E/LA and the Pass level in Math.	Students who scored in the Pass performance level in both E/LA and Math.	Students who scored in the Did Not Pass performance level in E/LA and the Pass level in Math.	
Mathematics Did Not Pass	Students who scored in the Pass+ performance level in E/LA and the Did Not Pass level in Math.	Students who scored in the Pass performance level in E/LA and the Did Not Pass level in Math.	Students who scored in the Did Not Pass performance level in both E/LA and Math.	

Students whose scores are summarized in the bold box in the upper left-hand corner of the report on the next page passed both English/Language Arts and Mathematics.

The section entitled "Summary of Student Counts" shows the total number of students, the number of students with complete tests in both content areas, and the number of students with "Undetermined" status in one or both areas.

The section at the bottom of the report called "Summary of Scores" provides school averages, standard deviations, and score ranges. For each of the performance levels—Pass+, Pass, and Did Not Pass—the mean scale score, the standard deviation, and the lowest and highest scale scores obtained are shown.

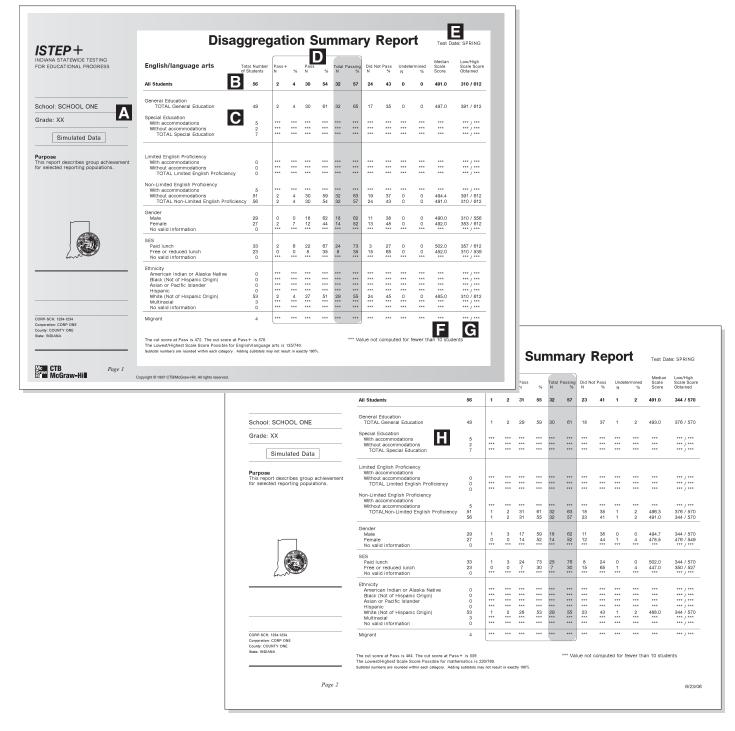


Highlights of the School Proficiency Performance Summary

- A Identifies the school and grade.
- **B** The **columns** report performance levels for English/Language Arts.
- **C** The **rows** report performance levels for Mathematics.
- Indicates the test date and identifies the corporation number, corporation, county, and state.
- **E** Provides school summary information for English/Language Arts.
- F Provides school summary information for Mathematics.
- **G** Provides school summary scores by performance level for both English/Language Arts and Mathematics.
- **H** Reports the number of students.
- Defines the abbreviations used in this report.

Disaggregation Summary Report

This report presents, by content area, the total number of students with scores identified as passing with high achievement (Pass+), passing (Pass), not passing (Did Not Pass), and "Undetermined." This information is given at the group level and describes achievement for each reporting population.



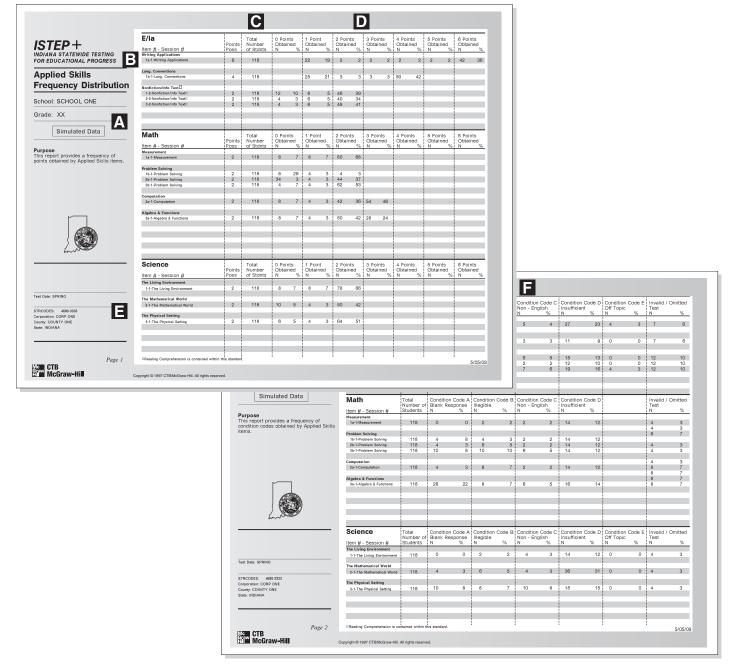
Highlights of the Disaggregation Summary Report

- A Identifies the school, grade, corporation-school number, corporation, county, and state in the left column.
- **B** Provides the total number of students.
- Identifies the reporting populations in the English/Language Arts content area.
- D Indicates the number and percentage of students who obtained Pass+, Pass, or Did Not Pass scores or who were "Undetermined." (The Total Passing column indicates the total number of students in the Pass+ and Pass columns.)
- **E** Indicates the test date.
- Indicates the median scale scores, which are not computed for groups with fewer than 10 students.
- **G** Indicates the lowest and highest scale scores obtained.
- **H** Identifies the reporting populations in the Mathematics content area.

Note: Science data will be included on all of the reports for Grades 4 and 6. Social Studies data will be included on all of the reports for Grades 5 and 7.

Applied Skills Frequency Distribution

The Applied Skills Frequency Distribution report presents, at the school level, the number and percentage of students who obtained each score point for the individual applied skills items. This information can be used to determine if the students in your school show strengths or needs on specific applied skills items and, therefore, in the Academic Standards that are assessed by these items.



Highlights of the Applied Skills Frequency Distribution

- A Identifies the school and grade.
- **B** Identifies the item number and the standard(s) being scored. Descriptions of each item, along with scoring rubrics and standards, are found in the *ISTEP+Teacher's Scoring Guides*.
- **C** Lists the total number of students tested in the school.
- **D** Lists the number and percentage of students obtaining each score point.
- **E** Indicates the test date and identifies the corporation-school number, corporation, county, and state.
- **E** Lists by condition code the number and percentage of students who did not receive a score.

Condition Codes

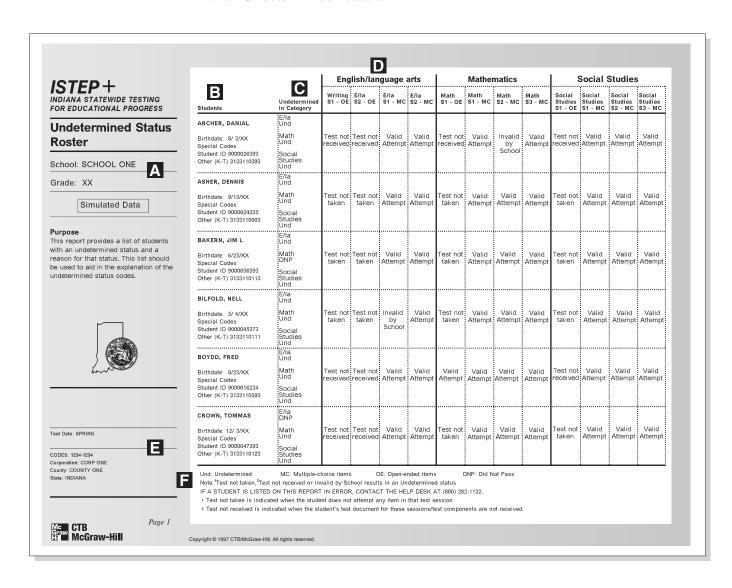
- A = Blank/no response
- B = Illegible/unable to score
- C = Written predominantly in a language other than English/unable to score
- D = Insufficient response/unable to score/copied from text
- E = Response not related to test question or scoring rule (English/Language Arts, Science, and Social Studies only)

If the writing prompt receives any of these condition codes **except condition code E**, the student will receive an "Undetermined" status for English/ Language Arts.

Note: Science data will be included on all of the reports for Grades 4 and 6. Social Studies data will be included on all of the reports for Grades 5 and 7.

Undetermined Status Roster

This report lists all students in the corporation who have an "Undetermined" status. Students are listed alphabetically by grade and by school. Students who fail to complete one or more subtests in English/Language Arts, Mathematics, Science, and/or Social Studies are listed as "Undetermined." This report indicates whether the subtest was not taken or was considered invalid by the examiner, or was not received by the examiner thus explaining the reason for the "Undetermined" status.



Highlights of the Undetermined Status Roster

- A Identifies the school and grade.
- **B** Lists alphabetically students who have an "Undetermined" status in English/Language Arts, Mathematics, Science, and/or Social Studies.
- C Indicates whether the "Undetermined" status is in English/Language Arts, Mathematics, Science, and/or Social Studies.
- **D** Indicates any subtest that was invalidated or not completed.
- Indicates the test date and identifies the corporation-school number, corporation, county, and state.
- **F** Defines the abbreviations used in this report.

Reports for the Corporation Administrator

Note: All sample reports shown in this guide contain simulated student data only.

Corporation Proficiency Performance Summary

This report summarizes groups of students according to performance levels of two content areas assessed by *ISTEP+*. It also provides summary scores by performance level. Each box provides the number and percentage of students who scored in each combination of performance levels. The rows provide performance-level information for Mathematics, and the columns provide performance-level information for English/Language Arts (see the table below for clarification). Information for Science appears on a separate page for Grades 4 and 6. Information for Social Studies appears on a separate page for Grades 5 and 7. The sum of students listed in blocks 1–9 is the total number of students with complete tests.

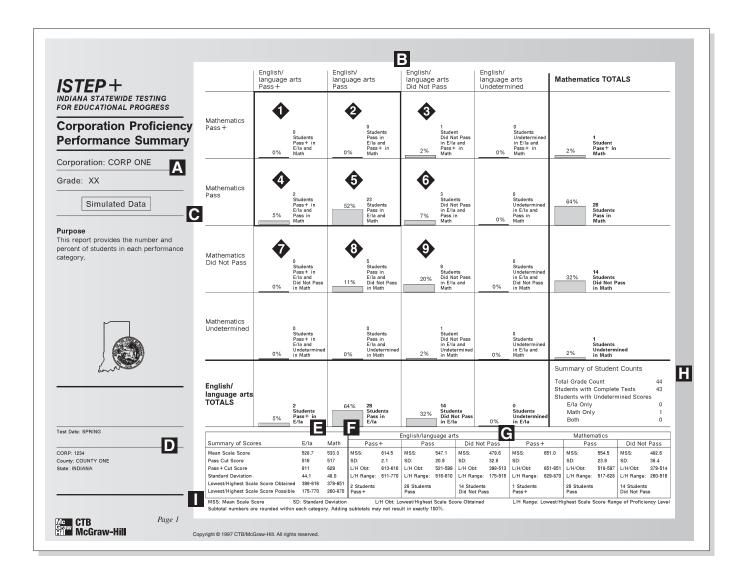
	English/Language Arts Pass+	English/Language Arts Pass	English/Language Arts Did Not Pass
Mathematics Pass+	Students who scored in the Pass+ performance level in both E/LA and Math.	Students who scored in the Pass performance level in E/LA and the Pass+ level in Math.	Students who scored in the Did Not Pass performance level in E/LA and the Pass+ level in Math.
Mathematics Pass	Students who scored in the Pass+ performance level in E/LA and the Pass level in Math.	Students who scored in the Pass performance level in both E/LA and Math.	Students who scored in the Did Not Pass performance level in E/LA and the Pass level in Math.
Mathematics Did Not Pass	Students who scored in the Pass+ performance level in E/LA and the Did Not Pass level in Math.	Students who scored in the Pass performance level in E/LA and the Did Not Pass level in Math.	Students who scored in the Did Not Pass performance level in both E/LA and Math.

Students whose scores are summarized in the bold box in the upper left-hand corner of the report on the next page passed both English/Language Arts and Mathematics.

The section entitled "Summary of Student Counts" shows the total number of students, the number of students with complete tests in both content areas, and the number with "Undetermined" status in one or both areas.

The section at the bottom of the report called "Summary of Scores" provides corporation averages, standard deviations, and score ranges. For each of the performance levels—Pass+, Pass, and Did Not Pass—the mean scale score, the standard deviation, and the lowest and highest scale scores obtained are shown.

Reports for the Corporation Administrator



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Reports for the Corporation Administrator

Highlights of the Corporation Proficiency Performance Summary

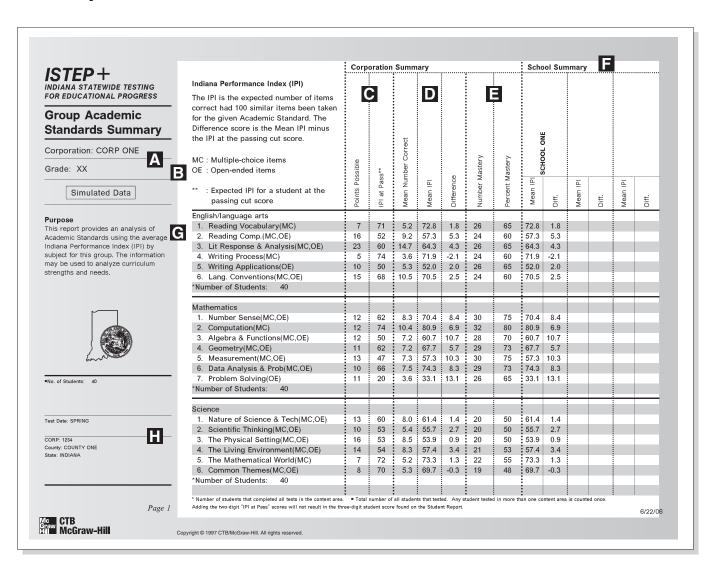
- A Identifies the corporation and grade.
- **B** The **columns** report performance levels for English/Language Arts.
- **C** The **rows** report performance levels for Mathematics.
- Indicates the test date and identifies the corporation number, county, and state.
- Provides corporation summary information for the English/Language Arts content area.
- Provides corporation summary information for the Mathematics content area.
- **G** Provides corporation summary scores by performance level for both English/Language Arts and Mathematics.
- **H** Reports the number of students.
- **I** Defines the abbreviations used in this report.

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Reports for the Corporation Administrator

Group Academic Standards Summary

The corporation Group Academic Standards Summary provides criterion-referenced information from the *ISTEP+* achievement tests, summarizing the performance of students for each school by grade.

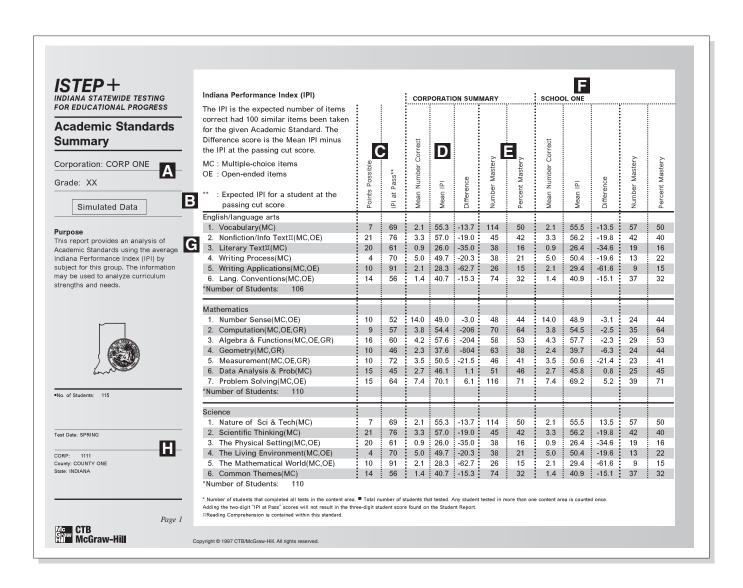


Highlights of the Group Academic Standards Summary

- A Identifies the corporation and grade.
- **B** Defines the report symbols and abbreviations used in this report.
- Shows the number of score points that assess each Academic Standard and lists the expected Indiana Performance Index (IPI) at the passing cut score. (See page 49 for the definition of *Indiana Performance Index*.)
- Lists the mean IPI obtained by the students in your corporation by grade, the mean number of score points obtained by your students, and the difference between the mean IPI and the IPI at the passing cut score.
- E Lists the number of students and the percentage of students who obtained mastery of each Academic Standard (i.e., achieved an IPI at or above the standard).
- **E** Lists schools alphabetically by name from left to right.
- **G** Lists Academic Standards for the grade.
- H Indicates the number of students and test date and identifies the corporation number, county, and state.

Academic Standards Summary

The corporation Academic Standards Summary provides criterion-referenced information from the *ISTEP+* achievement tests, summarizing the performance of students for an individual school by grade.

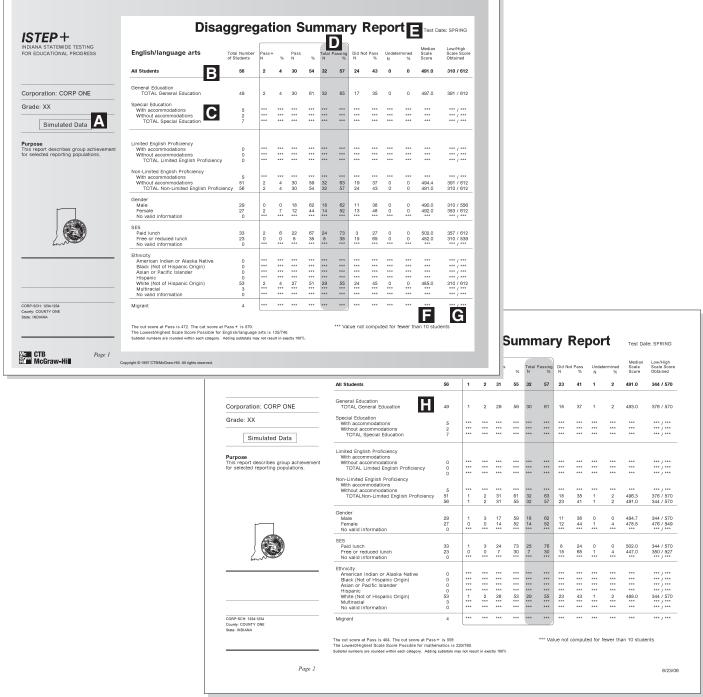


Highlights of the Academic Standards Summary

- A Identifies the corporation and grade.
- **B** Defines the symbols and abbreviations used in this report.
- Shows the number of score points that assess each Academic Standard and lists the Indiana Performance Index (IPI) at the standard. (See page 49 for the definition of *Indiana Performance Index*.)
- Lists the mean IPI obtained by the students in the corporation by grade, the mean number of score points obtained by the students, and the difference between the mean IPI and standard IPI for each Academic Standard.
- E Lists the number of students and the percentage of students who obtained mastery of each Academic Standard (i.e., achieved an IPI at or above the standard).
- **F** Identifies the name of an individual school (one school per page).
- **G** Lists Academic Standards for the grade.
- H Indicates the number of students and test date and identifies the corporation number, county, and state.

Disaggregation Summary Report

This report presents, by content area, the total number of students with scores identified as passing with high achievement (Pass+), passing (Pass), not passing (Did Not Pass), and "Undetermined." This information is given at the group level and describes achievement for each reporting population.

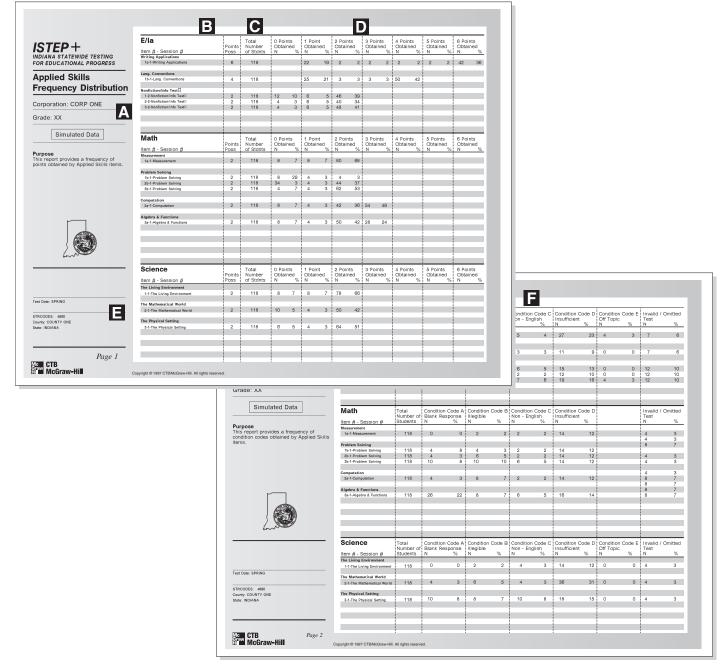


Highlights of the Disaggregation Summary Report

- A Identifies the corporation, grade, corporation-school number, county, and state in the left column.
- **B** Provides the total number of students.
- C Identifies the reporting populations in the English/Language Arts content area.
- D Indicates the number and percentage of students who obtained Pass+, Pass, or Did Not Pass scores or who were "Undetermined." (The Total Passing column indicates the total number of students in the Pass+ and Pass columns.)
- **E** Indicates the test date.
- Indicates the median scale scores, which are not computed for groups with fewer than 10 students.
- **G** Indicates the lowest and highest scale scores obtained.
- **H** Identifies the reporting populations in the Mathematics content area.

Applied Skills Frequency Distribution

The Applied Skills Frequency Distribution report presents, at the corporation level, the number and percentage of students who obtained each score point for the individual applied skills items. This information can be used to determine if the students in your corporation show strengths or needs on specific applied skills items and, therefore, in the Academic Standards that are assessed by these items.



Highlights of the Applied Skills Frequency Distribution

- A Identifies the corporation and grade.
- Identifies the item number and the standard(s) being scored. Descriptions of each item, along with scoring rubrics and standards, are found in the *ISTEP+ Teacher's Scoring Guides*.
- **C** Lists the total number of students tested in the corporation.
- **D** Lists the number and percentage of students obtaining each score point.
- Indicates the test date and identifies the corporation number, county, and state.
- Lists by condition code the number and percentage of students who did not receive a score.

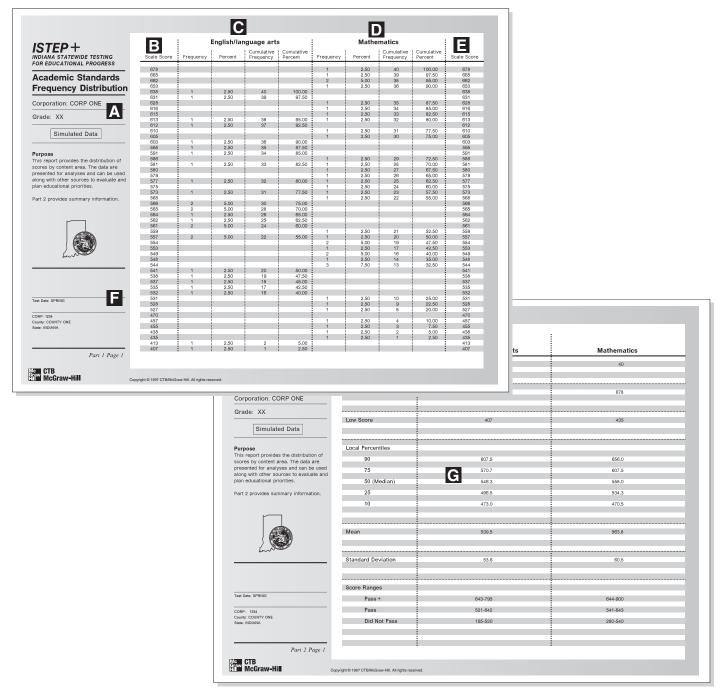
Condition Codes

- A = Blank/no response
- B = Illegible/unable to score
- C = Written predominantly in a language other than English/unable to score
- D = Insufficient response/unable to score/copied from text
- E = Response not related to test question or scoring rule (English/Language Arts, Science, and Social Studies only)

If the writing prompt receives any of these condition codes **except condition code E**, the student will receive an "Undetermined" status for English/ Language Arts.

Academic Standards Frequency Distribution

The Academic Standards Frequency Distribution report provides the corporation administrator with the distribution of scale scores achieved by all the students tested in the corporation. The data are presented for analysis and can be used, along with other resources, to evaluate and plan educational priorities.



Highlights of the Academic Standards Frequency Distribution

- A Identifies the corporation and grade.
- **B** Lists the scale scores achieved on the English/Language Arts test.
- Shows the number and percentage of students who achieved each scale score on the English/Language Arts test.
- **D** Shows the number and percentage of students who achieved each scale score on the Mathematics test.
- **E** Lists the scale scores achieved on the Mathematics test.
- Indicates the test date and identifies the corporation number, county, and state.
- G Indicates the scale scores achieved by students at five local percentiles (90, 75, 50, 25, and 10).

Note: Science data will be included on all of the reports for Grades 4 and 6. Social Studies data will be included on all of the reports for Grades 5 and 7.

Reference

Glossary

Criterion-Referenced Test

A test that reports students' scores relative to the Indiana Academic Standards.

Cut Scores

Cut scores are scale scores that separate and define the performance levels. The cut scores define three general levels of knowledge and skill as follows:

Pass+: The student who scores at or above the Pass+ cut score in English/ Language Arts, Mathematics, Science, and/or Social Studies is high-achieving in these subjects.

Pass: The student who scores at or above the Pass cut score in English/ Language Arts, Mathematics, Science, and/or Social Studies demonstrates proficiency in these subjects.

Did Not Pass: The student who scores below the Pass cut score may require remedial assistance to be successful at the current grade level.

In addition, a category referred to as "Undetermined" is for learners whose *ISTEP+* scores for English/Language Arts, Mathematics, Science, and/or Social Studies are incomplete. For these students, all or a part of the test was not taken or was considered invalid by the examiner or was not received by the examiner.

Indiana Academic Standards

To promote student academic achievement, the Indiana State Board of Education has adopted challenging standards. These standards are defined by a description of what students should know and be able to do at their grade levels. The standards for English/Language Arts include Vocabulary, Nonfiction/Info Text, Literary Text, Writing Process, Writing Applications, and Lang. Conventions. The standards for Mathematics include Number Sense, Computation, Algebra and Functions, Geometry, Measurement, Data Analysis and Probability (Grades 4 through 8 only), and Problem Solving. The standards for Science include The Nature of Science and Technology, Scientific Thinking, The Physical Setting, The Living Environment, The Mathematical World, and Common Themes. The standards for Social Studies include History, Civics and Government, Geography, and Economics.

Glossary

Indiana Performance Index (IPI)

The Indiana Performance Index is an indication of a student's performance on the individual Academic Standards that are measured by *ISTEP+*. It represents the expected number of items that the student would have answered correctly if the student had taken 100 similar items for the specific Academic Standard.

Indiana Scale Score

Student achievement levels relative to the Indiana Academic Standards are reported by *ISTEP+* scale scores. These three-digit, equal-interval scores are expressed on a vertical scale by content area (English/Language Arts and Mathematics). *ISTEP+* scale scores typically will range from about 100 to about 800.

Mean

The mean is the arithmetic average of a group of scores. It is calculated by adding the scores and dividing the sum by the number of scores.

Median

The median is the score below which 50% of cases fall. The median and the 50th percentile are the same.

Number-Correct Scoring

A scoring procedure that involves adding up students' scores on the test questions in a test.

Pattern Scoring

A procedure for assigning students' scale scores that involves considering the pattern of students' scores on the questions in a test as well as certain statistical characteristics of the questions.

Performance Levels

For *ISTEP+*, student achievement is reported in terms of three performance levels: Pass+, Pass, and Did Not Pass.

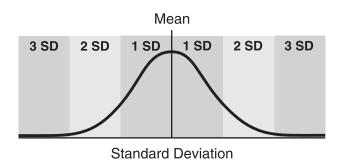
Raw Score

A student's observed score on a test, i.e., the number correct. While raw scores do have some usefulness, they should not be used to make comparisons between performances on different tests, unless other information about the characteristics of each test is known.

Glossary

Standard Deviation (SD)

A statistic that indicates the amount of variability in a group of scores. When scores are normally distributed (i.e., when they are part of a bell-shaped, "normal" curve), about two-thirds of the scores are within one SD above and below the average (mean) score, and about 95% of scores are within two SDs of the mean. In almost any shaped distribution, all scores will be within five SDs of the mean score.



Standardized Test

A test administered in accordance with explicit directions for uniform administration.

Target Score

The score needed to pass the test.

Test Session

A subtest within a given content area.

Undetermined

A scoring category for students whose *ISTEP+* English/Language Arts, Mathematics, Science, and/or Social Studies, scores are incomplete (i.e., all or part of the test was not taken or was considered invalid by the examiner or was not received by the examiner).

Sample Letter to Parents

Dear Parent:

This past spring, students in Grades 3–8 participated in the Indiana Statewide Testing for Educational Progress (*ISTEP+*). A copy of your child's Student Report is enclosed for your review.

The front of the Student Report shows how your child did compared to the Indiana Academic Standards. The standards are the required skills that schools must teach to their students. This report shows whether your child scored at the Pass+, Pass, or Did Not Pass performance level on the English, Mathematics, Science, and/or Social Studies parts of the test.

A student who scores in the Pass+ or Pass performance levels exceeds or meets the cut scores in English, Mathematics, Science, and/or Social Studies. A student who scores in the Did Not Pass performance level may require additional assistance in order to be successful at the current grade.

The back of the Student Report shows how your child performed on each of the English, Mathematics, Science, and/or Social Studies standards and how your child performed on each of the applied skills items. These are the questions that require students to write a paragraph or write the answer to a question instead of simply choosing the answer. Your child's answers to these applied skills items will be available for your review on the Indiana Parent Network. Your child's school will provide details regarding the Indiana Parent Network, including your login information.

Your child's school is the best source of information if you have questions about your child's *ISTEP+* scores.

Sincerely,

CTB/McGraw-Hill

20 Ryan Ranch Road Monterey, California 93940-5703 800.538.9547 | www.ctb.com



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Guide to Test Interpretation

Grades 3–8
Spring 2009

School Year 2008–2009

